

Focus Report
New Chemicals Program
PMN Number: **L-14-0052**

Focus Date: 12/09/2013 12:00:00 AM Report Status: Completed
Consolidated Set:
Focus Chair: Loraine Passe Contractor: Olga Svetlitskaya

I. Notice Information

Submitter: Resman USA CAS Number: [REDACTED]
Chemical Name: [REDACTED]
Use: Chemical tracer for production monitoring in oil and gas wells. [REDACTED]
Other Uses: [REDACTED]
PV-Max: 10,000 Kg/yr Binding Option: No
Manufacture: Import: X

II. SAT Results

(1) Health Rating: Eco Rating: 1 Comments: ;
Occupational: 0-1 Non-Occupational: 3 Environmental: 3
(1) PBT: 3 1 1 Comments:
Awaiting Human
Health Entry
Awaiting Human
Health Entry
Awaiting Human
Health Entry

III. OTHER FACTORS

Categories:

Health Chemical Category: Ecotox SAR and anionic surfactants; Anionic
TSCA New Surfactants
Chemical
Category:

Related Cases/Regulatory History:

Health related Cases:
Ecotox Related Cases: [REDACTED]
Regulatory History: [REDACTED] - FOCUS DROP

MSDS/Label Information:

MSDS: Yes Label: No
General Equipment: gloves (selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it) / Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU). / Impervious clothing.
Respirator: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEKP2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Health Effects: Inhalation of dust from the break down products may however cause| headaches or respiratory irritation. Prolonged or repeated exposure can irritate| eyes and skin.
TLV/PEL (PMN or raw material): - none established.
LVEPPE: Solid form, PPE: gloves, eye protection

Exposure Based Information:

Exposure Based Review: N
Exposure Based Review (Eco): N
Exposure Based Review
(Non Occupational):

Exposure Based Review (Health): N
Exposure Based (Occupational): No
Exposure Based (Environmental):

IV. Summary of SAT Assessment

Fate:

Fate Summary: L-14-0052-54
FATE:
Solid with MP = 200 C (M)
log Kow = -5.10 (M)
S > 10 g/L at 25 C (E)
VP < 1.0E-6 torr at 25 C (E)
BP > 400 C (E)
H < 1.00E-8 (E)
POTW removal (%) = 0; L-14-0052: OECD 306(Biodeg in Seawater, Closed Btl): 6.6%/28d.
L-14-0053: OECD 306(Biodeg in Seawater, Closed Btl): 2.5%/28d. L-04-0054: OECD 306(Biodeg
in Seawater, Closed Btl): 5%/28d.
Time for complete ultimate aerobic biodeg > mo
Sorption to soils/sediments = low
PBT Potential: P3B1
*CEB FATE: Migration to ground water = rapid

Health:

Health Summary: Absorption is nil through the skin, poor through the GI tract, and good through the lung, based on physical/chemical properties. There is concern for irritation to the eye and mucous membranes, based on the solvent-like properties of the LVE substance.

Ecotox:

Ecotox Values:
Fish 96-h LC50: >100(P)
Daphnid 48-h LC50: >100(P)
Green algal 96-h EC50: >100(P)
Fish Chronic Value: >10(P)
Daphnid ChV: >10(P)
Algal ChV: >10(P)

Ecotox values comments: Predictions are based on SARs for anionic surfactants; SAR chemical class = surfactant-anionic- [REDACTED]; MW 720-754 with 100% < 1000 and 0% < 500; S > 1000 g/L (P); pH7; effective concentrations based on 100% active ingredients and nominal concentrations; hardness <150.0 mg/L as CaCO3; and TOC <2.0 mg/L

Ecotox Factors:

Assessment Factor: 10
Concern Concentration:
- Acute Value
Concern Concentration: 1000
- Chronic Value

V. Summary of Exposures/Releases

Engineering Summary: L-14-0052

Exposures/Releases	Release	Release	
Scenario	Use: Tracer Chemical in Oil and Gas Wells	Use: Tracer Chemical in Oil and Gas Wells	
Sites	9	9	
Media	Water	Water or Landfill	
Descriptor A	Output 2	Output 2	
Quantity A (kg/site/day)	3.2E+0	1.4E-3	
Frequency A (day/year)	350	350	
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Release to Water from Separation Process	Equipment and Storage Tank Cleaning	
Workers			
Exposure Type			

VI. Focus Decision and Rationale

Regulatory Actions

Regulatory Decision: LVE Grant

Decision Date: 12/09/2013

Type of Decision:

Rationale: L-14-0052/53/54 was granted. Human health hazard concerns were low-moderate for dermal and inhalation exposures. Potential risks to workers were mitigated by negligible exposures. Ecotoxicity hazard concerns were low based on SAR predictions for anionic surfactants. Potential risks to the environment were low due to no exceedances of the COC during the release period. This LVE was not bound at 60 kg/yr and was assessed at 10,000 kg/yr. This LVE is used as a tracer in fracking.

COC: Chronic – 1,000 ppb, Acute – 20,000 ppb

Summary of Exposures and Releases

Proc

9 sites, 250 days/yr, 0 workers

Inhalation: Not Expected

Dermal: Not required, per SAT

Use

9 sites, 350 days/yr, 0 workers

Inhalation: Negligible (VP <0.001 torr)

Dermal: Not required, per SAT

Releases to Water: 3.2E+0 kg/site-day over 350 days/yr

Releases to Water: 1.4E-3 kg/site-day over 350 days/yr

Or Landfill

Fate Releases to Water (0% Removal)

SWC: 3019.81 ppb

DW: LADD: 2.16E-03 mg/kg/day, ADR: 0.14 mg/kg/day

P2 Rec Comments:

Testing:

Final Recommended:

Health:

Eco:

Fate:

Other:

SAT Report

PMN Number: L-14-0052

SAT Date: 12/3/2013

Print Date: 12/4/2015

Related cases:

Health related cases:

Ecotox related cases:

Concern levels:

Type of Concern: Health Eco Comments
Level of Concern: 1

<u>Persistence</u>	<u>Bioaccum</u>	<u>Toxicity</u>	<u>Comments</u>
3	1	1	
		Awaiting	
		Human Health	
		Entry	
		Awaiting	
		Human Health	
		Entry	
		Awaiting	
		Human Health	
		Entry	

Exposure Based Review:

Health: No

Ecotox: No

Routes of exposure:

Health: Drinking Water Inhalation

Ecotox: No releases to water

Fate: ;

Keywords:

Keywords:

Summary of Assessment:

Fate:

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Ecotox:

Test Organism	Test Type	Test End Point	Predicted	Measured	Comments
fish	96-h	LC50	>100		
daphnid	48-h	LC50	>100		
green algal	96-h	EC50	>100		
fish	—	chronic value	>10		
daphnid	—	chronic value	>10		
algal	—	chronic value	>10		
Sewage Sludge	3-h	EC50	—		
Sewage Sludge	—	Chronic Value	—		

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Factors	Values	Comments
Assessment Factor	10	
Concentration of Concern (ppb) Acute		

Concentration of Concern (ppb) Chronic	1000	
SARs	anionic surfactants	
SAR Class	surfactant-anionic-	
TSCA New Chemical Category	Anionic Surfactants	

Ecotox Factors Comments:

SAT Chair: J. Kwiat, 564-7653

Fate assessor: **Ecotox assessor:** **Health assessor:**